

Listing of Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1.-10. (Cancelled)

11. (Previously Presented) A chemical mechanical polisher for planarizing a film on one side of a substrate having two sides, the polisher comprising:

at least one light source that is operable to transmit light toward the substrate from the side of the substrate with the film to illuminate at least one section on the film and reflect light off the illuminated section of the film; and

at least one device to receive the reflected light from the film on the substrate while the film is being polished, the at least one device being operable to monitor a dimensional change of the film based on the reflected light from the film on the substrate.

12. (Original) The polisher as claimed in claim 11 wherein the at least one device is positioned on the same side of the substrate as the light source.

13. (Previously Presented) The polisher as claimed in claim 11 wherein the at least one light source is operable to illuminate such that each monitored section is minimized in size to remove signal problems.

14. (Previously Presented) The polisher as claimed in claim 11, wherein the light source is configured to illuminate only one section, the section illuminated being a dedicated measurement area.

15. (Previously Presented) The polisher as claimed in claim 11, wherein the light source is configured to illuminate more than one section.

16. (Previously Presented) A chemical mechanical polisher for planarizing a film on one side of a substrate having two sides, the polisher comprising:

at least one light source that is configured to transmit light toward the substrate from the side of the substrate with the film to illuminate at least one section on the film and reflect light off the illuminated section; and

at least one means for receiving the reflected light from the film on the substrate while the film is subject to thickness changes, the at least one means being operable to monitor thickness changes of the film based on the reflected light from the film on the substrate.

17. (Previously Presented) The polisher as claimed in claim 16 wherein the at least one means for monitoring thickness change based on the reflected light signal comprises a photodetector connected to one of an interferometer and a spectrophotometer.

18. (Previously Presented) The polisher as claimed in claim 16 wherein the at least one light source is configured to illuminate such that each monitored section is minimized in size to remove signal problems.

19. (Previously Presented) The polisher as claimed in claim 16, wherein the light source is configured to illuminate only one section, the section illuminated being a dedicated measurement area.

20.-31. (Cancelled)

32. (Previously Presented) The polisher as claimed in claim 11 wherein the device that monitors a dimensional change includes a photodetector connected for sending signals to one of an interferometer and a spectrophotometer.

33. (Previously Presented) The polisher as claimed in claim 11 wherein the light source is a laser.

34. (Previously Presented) The polisher as claimed in claim 16 wherein the at least one means is positioned on the same side of the substrate as the light source.

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Page : 4 of 6

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35. (Previously Presented) The polisher as claimed in claim 16 wherein the light source is configured to illuminate only one section, the section illuminated being a dedicated measurement area.

36.-41. (Cancelled)